



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
1520 H STREET, NORTHWEST · WASHINGTON 25, D. C.
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FOR RELEASE: UPON DELIVERY
(About 8:30 P.M.)
March 16, 1961

RELEASE NO. 61-53

ADDRESS BY
JAMES E. WEBB, ADMINISTRATOR,
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AT THE DR. ROBERT H. GODDARD MEMORIAL DINNER
SHERATON PARK HOTEL, WASHINGTON, D. C.
THURSDAY, MARCH 16, 1961

Mr. Chairman, Mrs. Goddard, members of the National
Rocket Club:

The National Aeronautics and Space Administration is a direct result of the work of the distinguished scientist, Dr. Robert H. Goddard, for whom the Goddard Space Flight Center stands as a tribute and a memorial. He was a true pioneer on a new frontier.

I think I can report to you tonight that the Space Agency is hard at work. Our on-going program is on-going, and just last week I met with the staff and field directors who came in from all over the country for a two-day general review of progress being made. This meeting was one of a number of frequent reviews of the total program conducted by our senior staff and field directors but was timely from my point of view as it permitted me to talk face to face with all our responsible officials and receive their views as to needs and problems. It also afforded an opportunity for me to discuss with them the best way to carry out the request made by President Kennedy that all our programs and projects be thoroughly studied in the light of the objectives he has stated for his administration.

Based on the advice received from these men and their assurances that our work is continuing without interruption, Dr. Dryden and I are now proceeding to a thorough examination of the present validity of the ten-year program worked out last year, of the levels of funding provided by the budget presented to the Congress by President Eisenhower, and of all policy, program, and funding decisions

needed at this time. This evaluation will go forward without delay, and I feel very sure that the President will submit any changes which he believes necessary in time for consideration by the House Committee on Science and Astronautics during its present hearings on the Eisenhower budget. The pace at which both the executive and legislative branches are moving is also indicated by the fact that the Senate Committee on Aeronautical and Space Sciences has held a full review of the entire program preparatory to considering both the authorizing legislation for the funding of the program for the fiscal year 1962 and for any substantive changes which may be recommended by the President.

I should like to report also that the President and the Vice President have been giving careful consideration to the role of the Space Council and how that portion of the Vice President's time available for Space Council work can best be utilized for the good of the space program. Generally speaking, I believe this consideration will shortly result in an arrangement by which the Space Council, under the chairmanship of the Vice President, will be extremely useful in all phases of a vigorous space effort.

In the accomplishment of all of the above, which has taken less than a month and has involved matters of interest to a number of major governmental agencies, I believe it is possible to see the practical application of President Kennedy's policy which encourages direct dealing among the senior officials of the government. It has been my privilege in this period to be promptly and cordially received by the Secretary of State, the Secretary of Defense, the Deputy Secretary of Defense, the Chairman of the Atomic Energy Commission, the Secretary of the Army, and many of our senior military leaders. All of these have expressed great interest in the space program and offered the fullest measure of cooperation and have issued all necessary instructions in their various areas of responsibility.

With respect to the way Dr. Dryden as Deputy Administrator and I expect to work together, we have made arrangements under which we will share our common responsibility as Administrator and Deputy Administrator in such a way that he will have more time to devote to increasingly important objectives in the international field.

During my period of service as Under Secretary of State, it was my privilege to work closely with a number of our nation's leading scientists in the development of increased

emphasis on cooperative relations among scientists in many nations. Some of you will recall that we took at that time the first steps to establish scientific attaches in many of our embassies. Dr. Lloyd V. Berkner, then Director of the Laboratory of Terrestrial Magnetism at the Carnegie Institution, joined the staff of the State Department and took an active role in the initiation of this program. As I return to government service, I find that he is now the Chairman of the Space Science Board of the National Academy of Sciences, and he and I are already putting our heads together to increase the effectiveness of our cooperative relationships in space science with the scientists of other nations.

The foundation on which we can build increased international cooperation in research is already impressive.

Two years ago two nations had artificial satellite programs. Today there are six.

Two years ago four nations had scientific sounding rocket programs. Today there are eight nations with active or initiated programs in this field.

In the past two years the number of tracking and communications stations overseas in the program of the National Aeronautics and Space Administration have doubled. The full backing of the Space Science Board under such a vigorous and effective chairman as Lloyd Berkner can add much to an already effective program.

You all know that the Space Administration is a research and development organization dedicated to the acquisition of knowledge and its dissemination as widely and as promptly as possible. Our purpose is to benefit all mankind. This in itself is reason enough to seek the cooperation of other nations. No single nation and no single group of men, no matter how far advanced or how rich in resources, can have a monopoly on knowledge. Space research is based on such an advanced technology that it must draw upon the entire world for its ideas, for the insights it must apply to the real meanings of factual information, and for the increased knowledge that will bring ultimate benefits.

The program that the Space Administration is now conducting, or preparing to conduct with the scientists of other nations, is based on a number of carefully worked out policies:

First, proposed projects are clarified and defined through informal technical discussion prior to the negotiation

of formal agreements. This is to avoid the risk that expectations will outrun the possibility of fulfillment.

Second, cooperative projects must have valid scientific content; must be specific and reflect mutual interests and capabilities; and in the optimum case should represent experiments or other projects which the Space Administration would itself wish to carry out if they were not to be done jointly.

Third, sponsorship or support must be undertaken centrally by the cooperating governments as a means of assuring adequate sustained support and the selection of the specific projects to be undertaken from the multiplicity of individual and agency interests which exist in most nations.

Fourth, funds will not be granted or exchanged between nations but each nation will pay for that portion of the cooperative program which represents its own commitment of staff or material.

Fifth, scientific results of cooperative enterprises must be made generally available to the world-wide scientific community consistent with the interests of the prime experimenters in publishing the results of their own work.

Based on these five principles, the Space Administration is now engaged in a wide range of international activities. In March 1959 the U. S. National Academy of Sciences delegate to the International Committee for Space Research, offered, on behalf of the Space Agency, to place into orbit individual experiments or entire satellites of mutual interest prepared by scientists of other nations.

The first international satellites are already being prepared by the United Kingdom and Canada for launching in 1962. The initial United Kingdom satellite will conduct environmental investigations (cosmic rays, ion mass spectrum, electron density, and temperature and solar radiation), while the Canadian satellite will sound the ionosphere from above. Preliminary discussions relating to a French satellite are underway, and the Japanese government has evidenced an interest in a similar program.

The Space Agency has encouraged and assisted in the development of sounding rocket programs conducted abroad, and cooperates in the activities of foreign rocket teams where their objectives contribute to the over-all goals of space research. In particular, sounding rocket programs of synoptic value or especial geographic significance are encouraged. Upper air experiments

utilizing grenades and chemical reagents are especially suitable for the initial phases of foreign programs.

In the program of the Italian Space Committee, for example, a series of launchings were proposed to create sodium vapor clouds for the measurement of winds and temperatures in the high atmosphere. A successful test has already been conducted in Sardinia, and we hope there will be further launchings in April, synchronized with launchings of our own from Wallops Island. In this program the Italian Space Committee arranged for the necessary rockets, established a launching site and conducted the launching, provided optical instrumentation to retrieve the data and will reduce and analyze it. The National Aeronautics and Space Administration sponsored the Italian purchase of rockets in the United States, provided a basic launcher, and contributed the payloads. Technical advice was also afforded.

Another constructive contribution to space research lies in supporting ground research. A program of this type was arranged in connection with the utilization of Echo I, and, with the cooperation of the French and the British, resulted in the first Transatlantic communication by means of an artificial satellite. A similar, more extensive program was organized jointly with the United States Weather Bureau in connection with Tiros II, inviting foreign weather services to conduct meteorological observations, synchronized with the passes of the satellite, and to analyze the data from both sources. Instrumentation difficulties restricted the program, but a valuable organizational pattern was established and will be utilized again with the launching of Tiros III.

The ground-based program will maximize the scientific value of satellite programs by making available important supplementary information and by greatly expanding the number of competent scientists attacking the problems of data analyses and correlation. Further, it will engage foreign scientists in space-related activities, stimulating interest and providing necessary knowledge.

The Space Agency overseas tracking and communications stations present a unique opportunity for contributions to the pattern of open cooperation in space research. Of about two dozen overseas facilities, more than half are already operated wholly or in part with the assistance of foreign nationals. Indeed, the cost of operating several stations is fully borne by the cooperating countries. Increased participation in the operation of the global network is encouraged and a training program for this purpose is underway.

Foreign scientists entering the new technology of space research need technical advice and experience. A post doctoral research and training program, administered by the National Academy of Sciences, makes it possible for foreign as well as domestic scientists to pursue space-connected projects in this country. In a second and separate program, NASA offers laboratory support and training for extended periods to qualified scientists appropriately sponsored by their governments.

Possible training locations include the Goddard Space Flight Center, Jet Propulsion Laboratory, Wallops Station, and Goldstone, as well as other NASA centers and a number of university laboratories. Our plans include vehicle and launch operations; payload design, packaging and testing; space science programs; tracking, telemetry and communications; and data processing.

In conclusion, I would like to emphasize that the extensive activities which the agency is now undertaking are really but a preliminary effort to the world-wide utilization of the benefits which will inevitably flow from the programs conducted by the National Aeronautics and Space Administration in research, in development, and in the application of space science and technology for the good of all mankind.

Our international cooperative efforts to more effectively utilize in every part of the world the Tiros weather satellite offered the first step in the establishment of a world-wide weather-reporting-and-prediction network. To advance this effort, we are giving consideration to the expansion of the Tiros program by the addition of a sufficient number of satellites to keep at least one constantly in orbit pending the development of the successor Nimbus program.

The development of qualified scientific and technical personnel in all cooperating nations will be of the greatest value when the time comes to utilize a world-wide communication network based on communications satellites. If we have learned anything about major new breakthroughs in science and technology, in the period beginning with World War II when massive programs were put into effect, it is that we have consistently underestimated the potential of the new technology and the requirement for trained personnel.

The program of the National Aeronautics and Space Administration is a realistic and soundly based effort to lay a foundation for the requirements that we and other nations will inevitably face in the years ahead.

It is certainly a pleasure to be here tonight, and I wish your club every success in the coming year.